

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. APPLICATION NO. 09/859,461  
ATTORNEY DOCKET NO. Q64426

**REMARKS**

This amendment, submitted in response to the Office Action dated May 9, 2003, is believed to be fully responsive to each point of rejection raised therein. Accordingly, favorable reconsideration on the merits is respectfully requested.

Claims 1, 2, 4, 6 and 17-27 are all the claims pending in the application. The Examiner rejected claims 1-4 and 17-27 under 35 U.S.C. § 103(a) as being unpatentable over Hsieh in view of Applicants' statement of the prior art (hereinafter "Prior Art"). Applicant brings to the Examiner's attention that claim 3 has been canceled. Claims 1, 17-20, 22, 26, and 27 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Suzuki et al. in view of the Prior Art. The Examiner rejected claims 2 and 6 under 35 U.S.C. § 103(a) as being unpatentable over Hsieh in view of the Prior Art and Yamaguchi et al. The Examiner additionally rejected claim 2 under 35 U.S.C. § 103(a) as being unpatentable over Suzuki in view of the Prior Art and Yamaguchi.

As an initial matter, nothing in the references or in the Prior Art was specifically cited for teaching the elements of the present invention. The Examiner made only general conclusions and cited to where the elements of the claims were generally shown in the references. The Examiner, by making general indications that the features of the claims are taught in the references and the Prior Art, without more, has not established that the claims are prima facie obvious.

In addition, since nothing was particularly cited for teaching all of the elements of the claims, Applicant could only make assumptions as to the basis of the Examiner's argument. It is

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impossible for the Applicant to hypothesize every possible basis for the Examiner's rejections. Therefore, should the Examiner issue another action based on these combinations Applicant respectfully requests that any such action be issued as non-final, in view of the ambiguity as to which features the Examiner meant to cite in the rejections. Furthermore, Applicant respectfully requests that the Examiner more specifically establish the basis for rejection in any subsequent Office Action.

**Rejection of claims 1-4 and 17-27 over Hsieh and Admitted Prior Art**

The Examiner rejected claims 1-4 and 17-27 over Hsieh in view of the Prior Art. As an initial matter, with respect to the Prior Art, although the Prior Art may describe an element of a claim as described in the present invention, the Prior Art does not describe the elements in combination with the other elements described in the claims. For at least this reason, the Prior Art does not teach the elements of claims 1, 2, 4 and 17-27.

**Claim 1**

Claim 1 describes an organic pigment having a melting point not less than 310°C and a light-heat conversion layer having an absorbance near the infrared light region of not less than .5. It appears the Examiner is maintaining permanent yellow (Hsieh column 6, lines 40-41) is an organic pigment having a melting point not less than 310°C. Applicant submits that the melting point of the permanent yellow mentioned in Hsieh is unclear. There are various kinds of permanent yellow, each having their own melting points. The burden is upon the Examiner to establish that the permanent yellow taught in Hsieh has the claimed features.

With respect to the remaining elements of claim 1, regarding a light-heat conversion layer which converts light to heat and is disposed on a support, and having an absorbance in the near infrared light region of not less than .5, it is unclear whether the Examiner is referring to Hsieh or the Prior Art for teaching these features.

If the Examiner is referring to Hsieh, at most, Hsieh mentions heating a thermal transfer diffusion composition, and assuming this teaches the light-heat conversion layer of the present invention, nothing is mentioned about absorbance of the thermal transfer diffusion composition. Column 5, lines 34-36.

If the Examiner is referring to the Prior Art, as indicated above, the Prior Art does not describe the elements in combination with the other elements described in the claims. For the above reasons, claim 1 and its dependent claims should be deemed patentable.

## **Claim 2**

Claim 2 describes an image information layer disposed on a support and the heat resistance of the image formation layer is not less than 200°C according to the DIN 54001 standard. Hsieh does not appear to teach the heat resistance described in claim 2. The only relevant aspect of Hsieh cited by the Examiner appears to pertain to thermal transfer composition (column 5, lines 35-44) and not heat resistance.

If the Examiner is referring to the Prior Art, although the DIN 54001 standard itself is known in the art, the Examiner has not established that a thermal transfer sheet with an image information layer having a heat resistance not less than 200°C as described in claim 2, is known in the art.

**Claim 4**

With respect to claim 4, the Examiner maintains Hsieh and the Prior Art teach an organic pigment and an amorphous organic polymer having a softening point in the range of 40-150°C in the image formation layer is 30-70% by weight and 70 to 30% by weight and a thickness of .2 to 1.5µm. Again, it is unclear what the Examiner is referring to in the references and in the Prior Art for teaching these features of the claim.

If the Examiner is referring to Hsieh, again, it appears that the relevant section is column 5, lines 40-43. The relevant column and lines discloses heating at a range of 50-200°C, however, it is unclear if this refers to a softening point or to a melting point, or some other aspect of measuring heat. The burden of clarifying this ambiguity and establishing a prima facie case of obviousness is upon the Examiner.

For the above reasons, claim 4 should be deemed patentable. Since claims 6, 21 and 23 teach similar features, they are patentable for the same reasons.

**Claim 17**

Claim 17 describes an image receiving sheet with a cushion layer and an image receiving layer disposed on a porous support is disposed on the thermal transfer sheet.

Assuming the receiving substrate was cited for teaching the elements of claim 17, although Hsieh mentions a receiving substrate (column 5, lines 37-39), the remaining elements of claim 17, such as a cushion layer and a porous support, do not appear to be taught in Hsieh. In addition, the respective pages and lines in the specification which discuss the Prior Art, do not appear to teach the combined elements of claim 17.

**Claim 20**

It does not appear that Hsieh or the Prior Art teach a back coat on the opposite side of the heat conversion layer wherein the back coat imparts stability during movement, heat resistance and antistatic properties, as described in claim 20.

**Claim 22**

Claim 22 describes the image formation layer comprises an organic or inorganic matting agent which is crushed at the time of image transfer. Again, it is unclear what the Examiner is referring to in Hsieh for teaching a matting agent, but regardless, there not appear to be an element in Hsieh which is crushed. In addition, nothing in the Prior Art indicates a matting agent as described in claim 22. Therefore, claim 22 should be deemed patentable.

**Claims 24 and 25**

Neither Hsieh nor the Prior Art teach the amorphous organic polymers of now amended claims 24 and 25.

**Claim 26**

Claim 26 describes a matting agent which roughens the surface of an image formation layer. It is unclear what the Examiner is citing to for teaching a matting agent, regardless, nothing in Hsieh appears to roughen the surface of an image formation layer and it does not appear that the Prior Art teaches a matting agent as described in claim 26.

**Claim 27**

There does not appear to be a matting agent in Hsieh having a particular size of .5-1 $\mu$ m as described in claim 27. The pigment concentrations of Hsieh, which appears to be the relevant

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element teaching a particle size, have a range of .01 $\mu$ m to 50 $\mu$ m. However, pigment is not the same as a matting agent. Assuming arguendo, the pigment of Hsieh was cited for teaching the matting agent of claim 27, then there is a double counting issue, since it appears the pigment of Hsieh was used to teach the pigment of claim 1, which is a different element.

**Rejection of claims 1, 17-20, 22, 26, and 27 over a combination  
of Suzuki and Admitted Prior art**

The Examiner rejected claims 1, 17-20, 22, 26, and 27 as being unpatentable over Suzuki in view of the Prior Art. As indicated above, with respect to the Prior Art, although the Prior Art may describe an element or elements of the claims, the Prior Art does not describe the elements in combination with the other elements described in the claimed invention. For this reason, the Prior Art does not teach the elements of claims 1, 17-20, 22, 26, and 27.

**Claim 1**

It appears that Suzuki teaches an organic pigment having a melting point not less than 310°C (permanent yellow GG 02, column 23, line 36) as described in claim 1. However, Suzuki does not teach a light-heat conversion layer having an absorbance near the infrared light region of not less than .5, as further described in claim 1. In particular, it does not appear that Suzuki mentions anything about light-heat conversion or absorbance. Column 3, lines 9-13, which was cited by the Examiner, merely discusses a heat resistant protective layer and does not teach light-heat conversion and absorbance.

**Claim 17**

The Examiner cited column 3, lines 9-13 for teaching a cushion layer and imaging receiving layer disposed on a porous support is disposed on the thermal transfer sheet. The respective column and line cited by the Examiner describe a heat resistant protective layer. It does not teach a cushion layer and an imaging layer disposed on a porous support is disposed on a thermal transfer sheet. The Examiner bears the burden to demonstrate that Suzuki describes the support and cushion structure is present in the art. The Examiner has failed to meet that burden in relying on a transfer sheet.

**Claim 18**

The Examiner cites Suzuki for teaching that the support is transparent. The respective column and lines cited by the Examiner do not teach that the support is transparent. In addition, it does not appear that a transparent support is taught anywhere in the reference.

**Claim 19**

The Examiner maintains Suzuki teaches a support having a thickness between 16-300 $\mu$ m. The support in Suzuki has a thickness of 2 to 15 $\mu$ m (column 3, line 5), therefore, Suzuki does not teach the support thickness range desired in claim 19.

**Claims 22, 26 and 27**

The Examiner also cites Suzuki for teaching a matting agent which is crushed at the time of image transfer. As previously indicated, the Examiner cited relatively the same feature of Suzuki for teaching multiple aspects of the present invention. Regardless, the respective column and lines cited by the Examiner do not mention an element that is crushed at the time of image

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transfer and it does not appear that the crushing of a matting agent is taught anywhere in the reference. In addition, Suzuki does not teach a matting agent which roughens the surface of an image formation layer (claim 26) and a particle size of the matting agent is .5-1 $\mu$ m (claim 27). Therefore, claims 22, 26 and 27 should be deemed patentable.

**Rejection of claims 2 and 6 in view of Hsieh, Yamaguchi and Admitted Prior Art**

Claims 2 and 6 have been rejected as being unpatentable over Hsieh in view of the Prior Art and Yamaguchi. Nothing in Yamaguchi was particularly cited by the Examiner for teaching the elements of claims 2 and 6. The Examiner merely states that Yamaguchi recognizes that the heat resistance of the image formation layer is a result-effective parameter. See Office Action at p. 3.

**Claim 2**

Applicant submits that a combination of Hsieh, the Prior Art and Yamaguchi, do not teach the amount of heat resistance desired in claim 2. Although Yamaguchi indicates that heat resistance is a result effective parameter, the combination of references do not teach the range desired in the present invention. Therefore, the combination of references is insufficient to establish the elements of the claims. MPEP 2144.05.

In addition, *In re Aller*, 105 USPQ 233, which was cited by the Examiner, is distinguishable from the present situation. In *In re Aller*, there was a difference in the optimum temperature condition between that of the references cited and that of the Applicant's invention. Therefore, the court stated that the difference in temperature was not of such a magnitude to justify allowance. However, here, the reference cited by the Examiner does not even mention a



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desired temperature for heat resistance, and merely mentions that heat resistance is desired.

Since Yamaguchi does not indicate a temperature condition, there is not just merely a difference in the optimum temperature condition.

In addition, assuming that the desired melting point of a 120°C (see Abstract), indicates a range for heat resistance, this value is contrary to the heat resistance desired in claim 2.

#### **Claim 6**

The Examiner maintains that a combination of Hsieh, the Prior Art and Yamaguchi teach the elements of claim 6. It would appear that the same rejection would apply to claims 4 and 23 which teach similar features.

However, a combination of Hsieh, the Prior Art and Yamaguchi do not teach the elements of claim 6. Claim 6 describes an organic pigment and an amorphous organic polymer having a softening point in the range of 40-150°C in the image formation layer is 30-70% by weight and 70 to 30% by weight and a thickness of .2 to 1.5µm.

Yamaguchi teaches a resin having a melting point of 120°C (Abstract), however, it does not mention anything about a softening point. Suzuki teaches a melting point of 300°C (column 3, lines 33-34) but again, nothing is indicated about a softening point. Therefore, claims 4, 6 and 23 should be deemed patentable.

#### **Rejection of claim 2**

#### **Claim 2**

The Examiner additionally rejected claim 2 as being unpatentable over Suzuki, the Prior Art and Yamaguchi. As indicated above, although Yamaguchi indicates heat resistance is a


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result effective parameter, Yamaguchi does not indicate a desired temperature for heat resistance as described in claim 1. In addition, neither Suzuki nor the Prior Art compensate for this deficiency. Therefore, claim 2 should be deemed patentable.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

  
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